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PREFACE**Report Overview**

1. (S/WN) This subsection of the compendium contains an overall introduction with a location map and an individual basic report on each type A missile support base.

Notes for the Reader

2. (S/WN) Each individual basic report contains textual information which is formatted by subject so that comparisons are easier for the reader. The photograph of each missile support base shows the central area. All buildings have been measured and accounted for in the text for each individual basic report.

3. (S/WN) It was not practical to present a chronology of construction and missile equipment observations by each date of photographic coverage because the imagery record for each site spans up to 23 years. Coverage also has been sporadic. The gaps in coverage and the poor resolution of the imagery acquired prior to 1972 considerably reduced the amount of obtainable information.

4. (S/WN) In each basic report, construction activity was sometimes dated within a span of time—from the negation date to the date first observed—because of lack of coverage and poor resolution. Where evidence from photography was sufficient, a judgement was made as to the probable time of construction within the time span.

5. (S/WN) The floorspace of buildings used for housing is presented in square meters. It was determined that the floorspace in most barracks averages 80 percent of the measured roof area; however, some buildings had a lower percentage of floorspace because of building design. Terms such as "company-sized unit" and "company-sized area" indicate a military unit of from 90 to 140 people or the housing space to accommodate a unit of that size at a ratio of 4.6 square meters of floorspace per person. The buildings used for housing at missile bases were often geographically separated into company-sized areas, each with one messhall and one basketball court. The number of company-sized areas as well as total floorspace and other data to indicate personnel strength and organization have been provided in each basic report.

DOCUMENT

DIA. DDB-1000-8A-81, *Missile Order of Battle: Asian Communist Countries (U)*, Jul 81 (SECRET/

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REQUIREMENTS

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SUBSECTION IA

Type A Missile Support Bases And Type I Launch Sites (S)

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SUBSECTION IA: TYPE A MISSILE SUPPORT BASES AND TYPE I LAUNCH SITES (S)

INTRODUCTION

Definitions

Type A Missile Support Base

1. (S/WN) A type A missile support base is a storage and minor maintenance facility for missiles and missile equipment. It comprises several unprotected buildings in an isolated location. A type A base does not normally house complete launch units which are ready to fire a missile and there are no prepared launch sites, except training areas, near type A bases to which launch units might deploy. A type A missile support base lacks a collocated propellant storage facility and often the garage storage space for all the equipment necessary to launch missiles. Because type A missile support bases are isolated from other bases and launch sites, they are also termed field garrisons. Type A missile support bases support the Chinese SRBM, the CSS-1 MRBM, and the CSS-2 IRBM systems.

Type I Launch Sites

2. (S/WN) A type I launch site consists of a launch pad without any storage facilities for propellants or missile equipment. Most sites have a single concrete launch pad with a packed-earth apron surrounding it. Type I launch sites are typically in remote locations and are not occupied except during a crisis or as a contingency. They are also termed field positions.

Type A Missile Support Bases

Number and Location

3. (S/WN) Through March 1982, NPIC has identified ten type A bases in China. They have been found both along the periphery of China, where missiles can be launched from within range of strategic targets, and in the interior of the country, where the missiles must be moved hundreds of km to be in range of strategic targets (Figure 1). The following installations are classified as type A missile support bases and are listed below in the order they were established:

Installation Name	Be Number	Date Established
Wuwei SSM Field Garrison		1961 (deactivated in 1976)
Xian SSM Technical Training Facility		1961-1962
Dengshahe SSM Field Garrison		1961-1962
Yidu SSM Technical Training Facility		1961-1962
Dengshahe SSM Field Garrison North		1966
Kunming SSM Field Garrison		1967 (probably deactivated in 1980)
Dianhu SSM Support Facility		1969
Fengrun SSM Field Garrison		1971
Xixia SSM Field Garrison		1973 (deactivated in 1979)
Datong SSM Field Garrison		1976

General Description and Comparison of Type A Missile Support Bases

4. (S/WN) The common element among the ten type A missile support bases is that the missiles and missile CSE in them are stored in buildings (Figure 2). Missiles on transporters and missile T/Es are stored in missile checkout/storage buildings. The size of these bases varies greatly, from those housing parts of only one launch unit and having one missile checkout/storage building to those which contain from eight to ten missile checkout/storage buildings and house parts of eight to ten missile launch units.

5. (S/WN) Vehicle garage space and housing floorspace also vary greatly from one base to another. Only one type A missile support base (Fengrun) contains enough garage space for all the vehicles necessary to support the number of launch units at the base. Most of the type A bases contain only one-half to one-third of the necessary garage space. Housing space at most bases provides accommodations for 400 to 600 persons per missile checkout/storage building. Some bases could accommodate 5,000 to 6,000 persons, but those bases also contain a school or other training facilities and therefore need additional housing space.

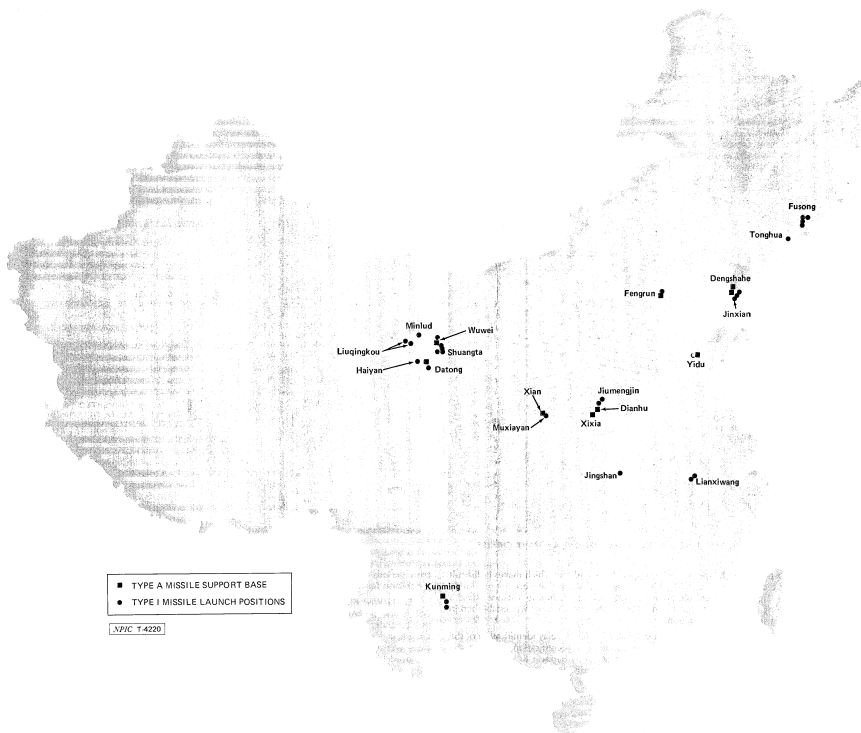


FIGURE 1. LOCATIONS OF TYPE A MISSILE SUPPORT BASES AND TYPE I LAUNCH POSITIONS, CHINA

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6. (S/WN) An unusual aspect of each type A missile support base, and one which makes it difficult to identify them, is that all of the bases were established in existing installations that were not previously associated with missile forces (Figure 3). Often, old army barracks were used; in one instance (Xixia) a commune headquarters building or school was converted. One missile base (Datong) was established in an abandoned communications satellite ground station.

7. (S/WN) It now appears that this stratagem was intentional, in order to delay identification of the new missile bases from overhead imagery. The Chinese further complicated identification by storing the missile equipment, in the types of garages which could be seen at any army barracks as well as at many civilian installations. Also, the missile checkout/storage buildings are simple, gable-roofed buildings which look, from overhead, like vehicle garages except that the only drive-in doorway is on the end of each building. The missile checkout/storage buildings have no other identifying features, such as stacks or unique appendages. These methods of deception were consistently used at each base. They successfully delayed identification of new bases, particularly those established in the 1960s.

Function

8. (S/WN) As indicated above, a type A missile support base does not contain missile equipment or launch units which are already deployed. Rather, it is a storage facility and hiding place for missile equipment which must be consolidated and transported to a deployment area. It has only been during

crisis periods or during training exercises that complete missile launch units have been observed and propellants for the missile supplied.

9. (S/WN) Normally, all missile equipment is either stored in buildings or camouflaged with nets. GSE is also parked under trees or next to buildings. If GSE is in the open and uncovered, routine maintenance, training activities, or deployment could be underway. It is difficult to determine if deployment is underway without corresponding imagery of many other bases in the missile force and imagery of areas where these units might train or deploy. Because missile launch units apparently are not often deployed from type A missile support bases, routine activity in the base consists of maintenance and training involving small groups of equipment. Evidence for a yearly cycle of training in the field is accumulating. Personnel from each launch unit probably attend an exercise at a field training position annually. Each type A missile support base has an associated type I training position (Figure 4) in the field, and some also contain a type I training position in the base.

Missile System Association

10. (S/WN) Type A missile support bases are the oldest bases in China. They were established in the 1960s originally for the SRBM and CSS-1 MRBM systems. Seven of the ten type A bases—Wuxue, Xian, Yidu, Dengshahe, Kunming, Dianhu, and Xixia—initially contained SRBM equipment. Both Dianhu (established in 1969) and Xixia (established in 1973) probably received SRBM equipment that was removed

from some of the older type A bases as CSS-1 equipment replaced the SRBM system. CSS-1 GSE subsequently was observed at six of the seven bases which had first contained SRBMs. The CSS-1 was the first missile system to be introduced at Dengshahe North and Fengrun.

11. (S/WN) Since 1970, CSS-2 IRBM GSE has been observed at seven of the ten type A bases. CSS-2s were first introduced in the early 1970s at two of the three bases with associated training schools (Wuxue and Yidu) and were then observed at Kunming, Datong, Xian, Dengshahe, and Dengshahe North between 1976 and 1979. By November 1981, all of the CSS-2 equipment had been removed from the two Dengshahe bases, but the CSS-1 GSE was still present. Datong is the only type A missile support base which has been associated exclusively with the CSS-2 missile system.

12. (S/WN) Because Yidu was a technical training school for all of China's operational missile systems until 1978, it contained T/Es for the SRBM, CSS-1, CSS-2, and the CSS-3 ICBM. Xian, another school, apparently contains equipment for all those systems and for the CSS-4 ICBM and the WU-1 solid-propellant missile system. Details of the chronology of equipment sightings at each base are reported in the individual basic reports.

Imagery Analyst's Comments

13. (S/WN) Because type A missile support bases originally were established for the SRBM and CSS-

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1 missile systems, both of which are no longer in production, the role of type A bases in China's future deployment plans is not clear. The number of operating type A bases, the number of possible missile launch units in type A bases, and the percentage of the Chinese missile force in type A missile support bases are all declining. China's SRBM units possibly are no longer operational, and the number of operational CSS-1 units appears to be declining. While CSS-2 equipment has been brought to some type A bases to replace or augment aging CSS-1 systems, the overall trends cited above continue. They indicate a decline in the importance of type A bases.

14. (S/WN) The CSS-2 force is growing but CSS-2 launch units stored in type A missile support bases have considerable operational disadvantages compared to CSS-2s in type C or even type B missile support bases. The CSS-2 uses storable propellants, so the lack of propellant storage facilities in or near type A missile support bases delays deployment of CSS-2 launch units. The CSS-1 and SRBM use a cryogenic oxidizer which cannot be stored long-term, so the lack of propellant storage facilities in type A bases did not further limit CSS-1/SRBM capabilities for deployment.

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15. (S/WN) The capability to hide the existence of some type A missile support bases and to conceal CSS-2s and GSE in them could continue to enhance the survivability of a part of the Chinese missile forces. However, no strong attempt has been made to disguise any of the bases currently housing CSS-2 equipment. The CSS-2 base at Datong, the newest type A base to be detected, is very large—extending over a 5-kilometer area—and houses several hundred pieces of equipment and 5,000–6,000 persons. Its size alone attracts attention. Also, repeated imaging can eventually reveal a type A missile support base because missile equipment is brought into the open for training or maintenance. Unless more type A bases are soon constructed or old ones detected, current trends indicate that all of the type A bases operating in 1982 could be deactivated within the next five years.

16. (S/WN) While the importance of remote type A bases appears to be declining, the amount of training and other preparations for deployment to remote type I launch sites are increasing. More field training areas have been detected in the last five years, and existing field training facilities have been much improved. Also in the past five years, missile support vehicles with greater offroad capability have been introduced, and more realistic field training has been conducted, including exercises in bad weather and missile firings for the first time from launch positions in the field. It is particularly unlikely that missile launch units deployed to remote locations singly or in groups of two (as have been seen in training) will be detected. Given the present frequency and interpretability of imagery of undeveloped areas of China, routine deployments of up to six months duration in these remote areas could escape detection.

Type I Launch Sites

Number and Location

17. (S/WN) Through March 1982, 23 type I launch sites have been identified in China. Eighteen have one launch position and five have two launch positions, making a total of 28 type I launch positions (Figure 1). Twenty-five of the 28 type I launch positions have been converted to training areas or were built initially as training areas. All are presently titled as training launch sites or positions. Only three of the type I launch sites contain the original austere, hard-to-identify launch positions, where no training is conducted and to which the Chinese might be expected to deploy missiles in wartime. An example is Liuqingkou SSM Field Training Position 1 (Figures 5 and 6). Type I launch sites are listed in alphabetical order in the table below.

Installation Name

Be Number

Datong SSM Field Garrison
 Dengshahe SSM Training Launch Site 1*
 Fengrun SSM Training Launch Site
 Fusong SSM Field Training Position 1*
 Fusong SSM Field Training Position 2
 Fusong SSM Field Training Position 3
 Haiyan SSM Field Training Position
 Jingshan SSM Field Position
 Jinxian SSM Field Position
 Jiumengjin SSM Technical Training Facility*
 Kunming SSM Training Launch Site 1*
 Lianxiwang SSM Training Launch Site 1*
 Liuqingkou SSM Field Training Position 1**
 Liuqingkou SSM Field Training Position 2**
 Minlud SSM Field Training Position**
 Muxiayan SSM Field Training Position
 Shuangta SSM Field Training Position 1
 Shuangta SSM Field Training Position 2
 Shuangta SSM Field Training Position 3
 Shuangta SSM Field Training Position 4
 Tonghua SSM Launch Complex Garrison 2A
 Yidu SSM Technical Training Facility
 Wuwei SSM Training Position



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* Contains two launch positions.

** Site where no training has been observed.

General Description and Comparison of Type I Launch Positions

18. (S/WN) Twenty-six of the 28 type I launch positions have concrete launch pads. The pads at most of those sites are 7.6 meters square. The training launch pads within the Tonghua and Datong garrisons are smaller. Only a packed-earth launch point has been observed at the two type I launch positions at Fusong SSM Field Training Position 1.

19. (S/WN) An apron surrounds the launch pad at each type I launch position. The apron is usually

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of packed earth, but its size and shape vary widely. At some type I launch positions, a concrete missile-loading apron from 20 to 35 meters long and [] abuts the launch pad. It is used as a level surface on which to attach the reentry vehicle to the missile and to erect the missile on its launch stand. However, missiles have been observed successfully assembled and erected at type I launch positions without a concrete loading apron.

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20. (S/WN) There appears to be no other feature which is standard or necessary at type I launch positions. Some sites, especially those frequently used for training, have many improvements, such as all-concrete aprons, night lighting, and complete housing and missile storage facilities. None of those additions are considered necessary, because missiles have been fired from type I launch sites that contain only a stable launch surface such as at Shuangta. The Shuangta sites also lack power and communications transmission lines. Power sufficient for launches can be supplied from generator trailers, which are part of each launch unit. Communications-related van-bodied trucks have also been observed with the launch units.

Missile System Association

21. (S/WN) Missile exercises for the SRBM, the CSS-1, and the CSS-2 have been observed at type I launch positions. All three types of missiles have been erected at various times on the same pad at Yidu and Jiumengjin. It is believed that any type I launch position could be used by an SRBM, a CSS-1, or a CSS-2 launch unit.

Imagery Analyst's Comments

22. (S/WN) It is unlikely that all type I launch positions have been located. Missile GSE has been observed where no missile launch position has been detected. For example, two SRBM checkout tents, missile support vans, and a possible SRBM T/E were observed during field training exercises 60 km (95 km by road) east-southeast of Dianhu SSM Field Garrison []. No launch position has been found in this area. To reach the training location after leaving the main highway, the vehicles had to travel on an unimproved road for about 1 km and then cross a stream.

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23. (S/WN) Possible field positions from the 1969-70 Sino-Soviet border crisis are still being discovered. For example, an abandoned possible type I launch site (Figure 8) was recently identified in western China, in the same valley as Daqaidam SSM Launch Site 2 []. The site was constructed in 1969 or 1970, during the Sino-Soviet border crisis, but was only recently detected on imagery of the Daqaidam launch sites, which are under construction. The possible launch site had a square launch pad area marked by a stake or tripod; the pad area was surrounded by a rectangular, leveled apron accessible by one road. The access road leads to a group of approximately 30 vehicle revetments and 15 tent bases or dismantled shelters. The possible launch area is similar in layout and size to the launch area at Minlud SSM Field Training Position, and the revetments are similar to those used at Shuangta SSM Field Training Position 1, both of which are in this region of China. Part of the launch apron has been eroded by a nearby stream. A second possible type I launch site was found nearby, in the same valley as Daqaidam SSM Launch Site 1 []. If these possible sites are field launch positions, they would be the westernmost type I launch sites detected in China which were constructed during the 1969 border crisis with the Soviet Union. They also would have been farthest from rail service. In 1969, the road distance northward or eastward to the nearest rail line was 150 to 200 kilometers.

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24. (S/WN) Type I field positions can be constructed in 2 to 21 days, depending on the material used for the launch pad. Also, missile launch units could use any suitably stable surface in an emergency or as a contingency. Road intersections, grain threshing yards, brickyards, and basketball courts are all examples of common and hard surfaces which, with only a few improvements, might be used in an emergency.

25. (S/WN) As mentioned previously, there has been an increase in training for deployment to remote launch sites, but only one new type I launch position not used for training has been detected. This launch position is identified as Liuqingkou SSM Field Training Position 2, which was constructed in 1978. The identification of a bulldozer and some other construction equipment in a display of GSE for a CSS-2 or CSS-3 launch unit at Xian in 1981 is new evidence that each field-deployed launch unit will prepare its launch position, possibly at a presurveyed point, after arrival in the deployment area. Bulldozers have also been noted at Fengrun and Datong type A missile support bases, but the display at Xian was the most direct evidence that construction equipment is part of the GSE complement for some missile launch units.

26. (S/WN) The information in this subsection supersedes the previously published NPIC reports listed below.

RCA-01/0021/71, Apr 71 (TOP SECRET CODEWORD)

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PIN 044/74, Dec 74 (TOP SECRET CODEWORD [])

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RCA-01/0013/74, Apr 74 (TOP SECRET CODEWORD, [])

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RCA-01/0001/75, Nov 74 (TOP SECRET CODEWORD [])

RCA-01/0014/75, Sep 75 (TOP SECRET CODEWORD, [])

RCA-01/0005/72, Nov 72 (TOP SECRET CODEWORD [])

RCA-01/0001/79, Jul 79 (TOP SECRET CODEWORD, [])

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IDENTIFICATION OF SUBJECT MATTER		COUNTRY
Wuwel SSM Field Garrison		CH
UNIFORMED COORDINATES		
NA	37-56-58N 102-40-05E	
TOP REFERENCE		
SAC, USAIC, Series 200, Sheet 0383-11, scale 1:200,000		
INVENTOR/ISSUED		NEGATION DATE IF EXPIRED
Mar 82		Jun 80

BASIC DESCRIPTION

Location

1. (S/WN) Wuwei SSM Field Garrison (Figure 1) is a type A missile support base that was deactivated in 1976 by the CSRF. It is in Gansu Province, in the Lanzhou MR in western China. It is 3 km southwest of the town of Wuwei, 5.5 km northeast of Wuwei Possible SSM RTP, and 43 km north-northwest of four field-training launch sites at Shuangta. By road, these distances are considerably longer. The facility was a ground forces installation which was modified in 1961 to support SSM operations. It was returned to ground forces subordination in mid-1976. The installation is road served and secured by the earthen wall of the old fortress of Wuwei which are 3.0 meters thick, and 1.2 km long on each side. Electricity is supplied from the local power grid via overhead transmission lines. Communications were also provided by aboveground lines. The facility consisted of a missile and GSE storage area and a barracks and housing area. The garrison also contained an SSM training launch position, a motor pool, and probable classroom buildings for a school.

Missile and GSE Storage Area

2. (S/WN) A separately-secured missile and GSE storage area was at the extreme southeast corner of the facility. It consisted of four missile checkout/storage buildings; five missile checkout/storage buildings; three vehicle storage sheds with a total of 80 bays; two vehicle storage garages with a total of 39 bays; and a 2-bay RIM building. Another single-bay, missile checkout/storage building was at the SSM training launch position. Altogether, Wuwei contained 19 bays for missiles and transporters/Ts, and 210 vehicle storage bays. This total included 91 GSE storage bays in a motor pool separately described below.

3. (S/WN) The SSM training launch position was in the extreme northeast corner of the facility and was also separately secured. It consisted of a launch area with a concrete launch pad surrounded by a circular concrete apron 61 meters in diameter, a cross-shaped concrete missile transfer apron, and one single-bay missile checkout/storage building. A screen, for visual security when a missile was erected, enclosed the concrete apron and launch pad. The screen was 25 meters high and open to a height of seven meters above ground level to permit vehicle access from all directions.

Other Storage

4. (S/WN) A motor pool area was along the east wall between the missile and GSE storage area and the SSM training launch position. It contained seven vehicle storage garages and sheds with a total of 91 bays. Missile GSE, as well as cargo trucks and other vehicles were often observed in the motor pool area. An open field 100 meters west of the training launch position was often used for open storage and displays of missile GSE. There were 20 buildings, most of which were along the north wall, for general storage and supplies. The garrison also contained a weather station with augmented instrumentation, which included four instrumentation boxes and two weather radar vans. Both a Parcel A radar and a Canton A radar were observed at the station.

Barracks and Housing Area

5. (S/WN) The barracks and housing area contained approximately 23,842 square meters of barracks floorspace in 26 single-story barracks and four two-story administration/barracks buildings. In the four administration/barracks buildings, 50 percent of the total floorspace was barracks floorspace. At a ratio of 4.6 square meters of barracks floorspace per person, Wuwei had the capacity to house approximately

5,183 military persons. Additionally, 184 housing units and 34 large family housing units were present. These quarters added the housing space for 212 more military persons, increasing the total capacity of Wuwei to 5,395 people in 39 to 40 company-sized units. The facility also contained seven large messhalls, three small messhalls, three kitchens, three administration buildings, an administration/classroom building, an auditorium, and a hospital.

Construction Chronology

6. (S/WN) When Wuwei was first imaged in April 1960, the barracks and headquarters/administration areas were already in place. At that time, when the facility was identified as an army school and barracks area, none of the missile GSE support structures, the SSM training position, or the single-family housing existed. By November 1961, four and three missile checkout/storage buildings were present. The vehicle garages were in various stages of construction. The RIM building and the administration/classroom building had been completed. The single-family housing area had been added by November 1964. The launch pad and the circular security screen were constructed in the last half of 1965. By September 1967, two more missile checkout/storage buildings and sections of the vehicle storage sheds were under construction. This construction was complete in 1972. Between 1972 and 1976, 10 to 14 small garages and general support buildings were built. After 1976, when the base was returned to ground forces subordination, all of the missile-related buildings were left standing. Only the visual security screen around the training launch position was dismantled.

Missile System Association and Activity

7. (S/WN) The garrison was first usable in 1961, when seven missile checkout/storage buildings and several garages were complete and the associated launch position (Shuangta SSM Field Training Position 1, was built. No missile GSE was discernible at Wuwei until 1966, although new pavements and vehicle tracks at Shuangta indicated missile launch unit training had taken place. In January 1966, an SRBM transporter was identified at the Wuwei garrison. In October 1966, an SRBM exercise was observed at the training position. An SRBM on a transporter and an SRBM T/E were present. Very little imagery was acquired between 1967 and 1969. No missile GSE was observed in the Wuwei garrison or at the Shuangta field training position during this period, but as many as six type A missile railcars were observed at or near the associated Wuwei Possible SSM Transfer Point. It is probable that most of the SSM equipment at Wuwei was deployed or removed from the garrison during the build-up of tensions and border conflict with the USSR in 1969.

8. (S/WN) In 1970, the Wuwei garrison was confirmed on imagery as a missile installation, and Shuangta SSM Field Training Position 1 was also identified. Consequently, the amount of imagery of this area increased significantly. In August 1970, CSS-1 GSE was first confirmed at Wuwei, when a CSS-1 exercise was underway in the screened training launch position. In September a CSS-1 unit was undergoing field training at the Shuangta training position, and in October three CSS-1 T/E's and three CSS-1 transporters were in open storage at Wuwei. In November 1970, CSS-2 GSE was first detected at Wuwei and the first CSS-2 training was observed at the Wuwei training launch position.

9. (S/WN) From 1970 until 1976, CSS-1 activity declined considerably while CSS-2 activity was maintained. No further CSS-1 unit training exercises were observed at either the Wuwei or Shuangta training position. From mid-1972 through 1976, many of the larger pieces of SRBM and CSS-1 GSE were stored in the open and did not appear to be used frequently. However, CSS-2 activity did continue. The principal GSE for up to four CSS-2 launch units was observed, and one to three CSS-2 exercises were observed at the Wuwei training launch position each year. All missile GSE was removed between May and October 1976. The weather station and meteorological radars were also removed.

Imagery Analyst's Comments

10. (S/WN) The first observed CSS-2 equipment arrived at Datong SSM Field Garrison, 90 km southwest of Wuwei, in October 1976. Between May and October 1976, equipment was removed from Wuwei, suggesting that the CSS-2 GSE at Datong was from Wuwei. Also, CSS-1 GSE was observed at a support area of Xining Airfield for the first time in October 1976, suggesting that it also was from Wuwei. Xining Airfield is approximately 33 km south of Datong.

11. (S/WN) After the Wuwei SSM Field Garrison was abandoned by the missile forces, activity at Shuangta Field Position 1 continued. Three more field positions were constructed at Shuangta in mid-1976, and CSS-1 missile launches were conducted from these training positions in 1977 and 1978. The CSS-1 equipment for these firings was not from Wuwei, which had been abandoned, or from the Xining Airfield support area, where the equipment remained. In November and December 1977, a CSS-2 launch unit conducted a winter field training operation at Shuangta SSM Field Training Position 1. No training has been observed at any of the Shuangta training positions since 1978.

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INSTALLATION OR ACTIVITY NAME Xian SSM Technical Training Facility		COUNTRY CH
DTIC COORDINATES NA	GEOGRAPHIC COORDINATES 34-18-46N 109-07-21E	
MAP REFERENCE SAC, USATC, Series 200, Sheet 0885-11, scale 1:200,000		
DATE/TIME/USER Mar 82	MODIFICATION DATE (if required) Mar 89	

BASIC DESCRIPTION

Location

1. (S//WN) Xian SSM TTF (Figure 1) is in the eastern suburbs of the city of Xian, in Shaansi Province, in north-central China. It is situated on flat terrain in a heavily agricultural and populated area. The facility is served by aboveground power and communications lines and probably by the national-level buried communications cable system. A trunk line of the national-level cable system, which was built during 1968 and 1969, passes within 4 km of the facility. Subsidiary buried cablelines were noted 2 km from the facility in 1974 and within 300 meters of the facility in early 1982. Although Xian TTF contains a missile training area and school, it has been and possibly still is an operational element of the SSM forces. It contains a missile and GSE storage area within a separately wall-secured school area, a motor pool, a barracks and housing area, and its own rail-to-road transfer facility (Xian SSM RTP). Musayam SSM Field Training Position, which was deactivated in 1975, was 79 km by road to the east-southeast, and provided an associated field training area for complete missile launch units during the 1960s and early 1970s.

Missile and GSE Storage Area

2. (S//WN) Missile and GSE storage is primarily in the missile training area and school. GSE storage consists of one 8-bay garage and one 15-bay garage. The eight-bay garage, originally built for the SRBM, was designed to store large vehicles and/or pieces of SRBM GSE. These garages provide space for 23 vehicles. Missile and missile launcher storage is provided by one 10-bay missile checkout/storage building, one 2-bay missile checkout/storage building, and three single-bay missile checkout/storage buildings. The 10-bay missile and equipment storage building is a 5x by 21-meter structure originally built for the SRBM. It is also large enough to accommodate a WU-1 or CSS-2 transporter or T/E without the end protruding from the building. It is not large enough to fully accommodate the CSS-1 transporter. These five missile checkout/storage buildings provide space to store 15 missile transporters or T/E. Additional floorpace that could accommodate substantial numbers of missiles and/or missile GSE is also available in the missile training and display building: one drive-in, warehouse-type missile equipment storage building; one high-bay clerentary building with 25-meter-long rail guides; and one drive-through building with a high-bay section.

Other Storage

3. (S//WN) Additional GSE storage at Xian TTF includes one 6-bay garage, three 12-bay garages, one 14-bay garage, and one 15-bay garage. This provides space to store 71 vehicles. With the exception of one

new 12-bay garage, all the garages in this area are narrow and appear to be for small trucks and vehicles. A possible missile checkout/storage building (with two 25-meter-long bays) is also present. This building was built in 1975, and a walking bridge crane was erected in front of it in 1979.

4. (S//WN) A separately walled POL compound, with both belowground and aboveground POL storage tanks, is near the RTP in the southwest corner of the facility. Warehouses and other general storage buildings are in three areas of the facility—next to the motor pool, near the swimming pool, and at the rail entrance. A laboratory with four small rocket engine test cells is at the southwest corner of the base. Six multistory classroom and laboratory buildings are within the separately walled school area.

Barracks and Housing Area

5. (S//WN) The barracks and housing area contains approximately 23,377 square meters of barracks floorpace in seven multistory, multibuilding buildings. At a ratio of 4.6 square meters of barracks floorpace per person, Xian TTF has the capacity to house approximately 5,082 people in 37 to 57 company-sized units. Additionally, there are 897 family quarters and 70 to 80 quarters for single officers. The family quarters range from VIP single-family houses to 32-unit, four-story apartment buildings. These quarters increase the capacity of the TTF by approximately 467 people. Most of the single-family and single officers quarters are in double-walled compounds across the road from and north of the facility. These compounds also contain a school for dependent children, a dispensary, stores, and recreation areas.

6. (S//WN) Altogether, 5,500 to 5,600 military personnel could be housed at Xian TTF. Approximately one-half of the housing space is probably for transient personnel attending the school. Xian TTF is at least regiment sized, but its large administration building, auditorium, swimming pool, and VIP housing suggest that it could have division-level or army-level status. There are 9 large messhalls and 19 basketball courts associated with the military housing areas. Some of the messhalls are also used as auditoriums. There are additional messhalls and exercise areas associated with the family and single-officers quarters.

Construction Status

7. (S//WN) Xian TTF is a former PLA barracks or school that was converted to CSBF use. Except for the missile training area and school, the TTF was substantially complete when it was observed on the first interpretable photography of the facility in March 1959. At that time, the buildings within the facility appeared to be quite old. Xian TTF was apparently transferred to CSBF usage sometime between 1959 and 1962, when it was next imaged. Buildings for storing SRBM-sized GSE were observed on imagery of checkout/storage building had been completed. During 1963 and 1964, the largest classroom and the 30-meter-high training and display building were completed. The missile training and display building has six drive-in entrances and enough interior space to erect and display missiles and missile GSE. The three single-bay missile checkout/storage buildings capable of storing the longer CSS-1 MRBM were constructed in 1965. The two-bay missile checkout/storage building, probably for the CSS-2 IRBM, was constructed during 1966 and 1967. The warehouse-type missile checkout/storage building was constructed in 1972. The high-bay clerentary building and the two-bay possible missile checkout/storage building were built in 1976. The drive-through building with the high-bay section and an attached multistory classroom building were completed in 1979. Also in 1979, the walking bridge crane was constructed in front of the possible missile checkout/storage building. Recent construction includes a new office/classroom building built in the missile training area and school in 1980 and a new multistory classroom/administration building observed under construction near the parade field in 1981 and early 1982.

Missile System Association and Activity

8. (S//WN) Technical training and/or missile-related activity or equipment for every known Chinese strategic SSM system has been observed at Xian TTF. Since June 1963, missile-related technical training,

missile GSE, or missile-related railcars for the SRBM, CSS-1, CSS-2, CSS-3, CSS-4, and WU-1 have all been observed at the TTF.

9. (S//WN) No missile equipment or missile-related buildings were present in March 1959 when Xian TTF was first seen on interpretable photography. A missile-associated function for the TTF first became apparent in December 1962, when buildings capable of storing SRBM-sized GSE were observed. In 1964, when Musayam SSM Field Training Position was first observed, it was already an operational field training position. Until it was deactivated in 1975, Musayam probably served as the training site for units based at Xian TTF. Four missile checkout/storage buildings, capable of housing the CSS-1 and then the CSS-2, were constructed in 1966 and 1977.

10. (S//WN) Most imagery acquired from 1962 to 1972 was of low resolution and poor interpretability. During this time, there were few sightings of missile-related equipment. In June 1963, a mobile gantry crane was observed. A possible SRBM T/E was first observed in June 1967. In May 1970, an SRBM T/E was confirmed.

11. (S//WN) In July 1975, two possible warehouse vans were observed near the missile training and display building. In October 1977, CSS-2/CSS-3 missile GSE was confirmed for the first time when five CSS-2/CSS-3 propellant trucks were identified near the missile training and display building. Although CSS-3 training has never been confirmed at the TTF, CSS-2 propellant trucks and other items of CSS-2 GSE are also used for the CSS-3 and could indicate CSS-3 as well as CSS-2 training.

12. (S//WN) Since the late 1960s, when missile-associated railcars were first confirmed at the RTP at Xian, a wide variety of missile railcars, associated with all known Chinese SSM systems, have been observed on a routine and recurring basis. The RTP includes three parallel railpurs and an end-loading dock. A 1971-by 13-meter shelter covers two of the railpurs. This shelter was apparently built to preclude overhead observation of railcars parked inside. This gives the RTP the capability to conceal as many as 12 to 25 railcars. As a result, only cars parked outside the shelter on the railspur serving the end-loading dock can be observed.

13. (S//WN) In February 1978, a probable CSS-4 first-stage transporter was parked in front of the missile checkout/storage buildings in the school area. In September 1978, a probable CSS-4 first-stage transporter was again observed in the school area outside the missile training and display building. In October 1980, two type C missile railcars, associated with the CSS-4 ICBM system, were detected at the RTP for the first time. One CSS-4 first-stage transporter and one CSS-4 second-stage transporter were parked near the rail siding at the RTP. Neither the railcars nor the CSS-4 stage transporters have been observed since October 1980.

14. (S//WN) In March 1981, at least two unidentified cylindrical canisters/shipping crates were observed disassembled under the walking bridge crane near the possible missile checkout/storage building. The unidentified canisters/shipping crates opened lengthwise and were approximately 1.5 meters long and 0.5 meters in diameter. Several apparent handling rings were observed nearby. The canisters/shipping crates were similar, but not identical, to missile canisters used in the WU-1 SLBM program. The canisters/shipping crates were present through March 1982.

15. (S//WN) a CSS-2 missile unit GSE display was observed next to the missile training and display building. Equipment observed included one warehouse van, one CSS-2 launch stand van, and nine support/electronics vans. No missile transporter, T/E, or missile airframe was observed.

16. (S//WN) In early May 1981, a WU-1 missile train composed of one type H missile railcar, one type B4 missile factor, and one unidentified railcar which resembles a type I propellant railcar was observed at the RTP. This train, which has been associated with transportation of the WU-1 SLBM missile, had departed by mid-May 1981.

17. (S//WN) CSS-2 training again was observed in late June 1981, when a CSS-2 transporter, a T/E, and five other pieces of CSS-2 GSE were observed just outside the large doors leading into the training and display building in the missile training area and school. This indicated that CSS-2 missile training was underway inside. Since then, a few items of GSE have been observed sporadically through March 1982, indicating a possible winter training standdown.

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Dengshahe SSM Field Garrison		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	39-13-40N 122-03-21E	
MAP REFERENCE		
SAC. USATC, Series 200, Sheets 0381-5 and 0381-10, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if required)
May 82		NA

BASIC DESCRIPTION

Location

1. (S/WN) Dengshahe SSM Field Garrison (Figure 1) is a type A missile support base on the Liaodong Peninsula, in Liaoning Province, in northeastern China. The garrison is on the northern edge of the city of Dengshahe and is one of the five missile-related facilities in the immediate vicinity of Dengshahe. By road, the garrison is 8 km from Dengshahe SSM Field Garrison North, 9 km from Dengshahe SSM Training Launch Site 1, 4 km from Dengshahe Probable SSM RTP [REDACTED], and 25 km from Jinxian SSM Field Position. The garrison is on flat terrain in a densely populated and heavily agricultural area. Except for aboveground power and communications lines, no C3 facilities are apparent. The field garrison is probably also served by the national-level buried communications cable network which passes within 500 meters of the facility. The walled garrison consists of a missile and GSE storage area and a barracks and housing area. A separately walled dependent housing area is 152 meters southeast of the garrison, and a separately walled missile and GSE storage section is 518 meters north of the garrison. The storage section is considered part of the missile and GSE storage area.

Missile and GSE Storage Area

2. (S/WN) GSE storage buildings consist of one 2-bay garage, one 5-bay garage, one 12-bay garage, one 13-bay garage, and one 16-bay garage (14 bays of which are used for vehicle storage). The 2 bays on the west end of the 16-bay garage are used in conjunction with an adjacent missile checkout/storage building. These garages provide a total of 46 bays for GSE storage. Missile and missile launcher storage is provided by three single-bay missile checkout/storage buildings (two of which are in the storage section) and one open-sided, two-bay missile checkout and storage shed. This provides space to store five missile transporters or T/Es.

3. (S/WN) The [REDACTED] single-bay missile checkout/storage building in the main compound was originally constructed for the shorter SRBM and is not long enough to completely accommodate the CSS-1 transporter or T/E. When CSS-1 T/Es are observed parked in these structures, one end of

the T/E protrudes from the entrance of the building. The two single-bay missile checkout/storage buildings in the missile equipment storage section are each large enough to accommodate the CSS-1 or CSS-2 transporter or T/E. Each building is 35 by 11 meters and has a 6-meter-wide drive-in entrance.

Barracks and Housing Area

4. (S/WN) The barracks and housing area contains approximately 9,693 square meters of barracks roof space. This roof space figure is reduced by 40 percent, to 5,816 square meters of barracks floorspace, to allow for the large amount of kitchen, mess, and administrative space inside these barracks. At a ratio of 4.6 square meters of floorspace per person, the garrison has the capacity to house approximately 1,264 people in 9 to 14 company-sized units. The barracks and housing area is a western-style installation which was probably built by one of the occupying European countries during the 1920s and 1930s. Most of the mess facilities are in the troop-housing buildings. There are 11 separate groups of animal pens, indicating that the installation contains 11 separate kitchens. There are eight basketball courts, seven small general storage and office buildings, and one vehicle maintenance building. The dependent housing area contains 45 to 55 separate quarters.

Construction Chronology

5. (S/WN) Dengshahe SSM Field Garrison is a former army barracks. It was substantially complete and already occupied by missile (probably SRBM) forces when first observed on interpretable photography of the facility in June 1962. Until mid-1966, canvas-covered missile GSE was stored in the open or in the separately walled missile and GSE storage section which contained two single-bay missile checkout/storage buildings. Between late 1966 and early 1967, a missile checkout/storage building and three garages with a total of 35 bays were added. By 1970 an additional five-bay garage and a two-bay garage had been constructed. Throughout the 1970s, only minor changes occurred. An open-sided shed was built to cover two missile transporters or T/Es, and six bays were added to a garage. Improvements were made to the dependents housing area, and a wire fence was constructed within the garrison to separately secure the missile equipment storage area.

Missile System Association and Activity

6. (S/WN) Dengshahe SSM Field Garrison was transferred to the CSRF in the early 1960s. Missile GSE has been observed in the installation since June 1962, when one SRBM T/E, one mobile gantry crane, and five trucks or trailers were observed. There is no photography to indicate when the missile equipment arrived. SRBM GSE was observed again in August 1962 and November 1964. In October 1966, CSS-1 GSE was observed for the first time when 1 CSS-1 T/E and 23 other vehicles were seen. An SRBM transporter and two mobile gantry cranes were also present. This was the last observation of SRBM GSE at this facility before it was converted from SRBMs to MRBMs. CSS-1 GSE was frequently observed between 1966 and March 1982, the date of the latest imagery. Additionally, in May 1978, CSS-2 GSE, consisting of three CSS-2 transporters or T/Es, was confirmed for the first time. CSS-2 GSE has been frequently observed since 1978. As many as three CSS-1 T/Es and three CSS-2 transporters/T/Es have been observed at the same time in the open storage areas at the base. From November 1981 to May 1982, no CSS-2 GSE was observed and it is possible that the CSS-2 units had departed. CSS-1 GSE was still present as of March 1982. In May 1982, CSS-2 GSE was again observed in the garrison along with CSS-1 GSE.

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Dengshahe SSM Field Garrison North		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	39-18-09N 122-03-58E	
MAP REFERENCE		
SAC. USATC, Series 200, Sheets 0381-5 and -10, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if required)
May 82		Mar 66

25X1

BASIC DESCRIPTION**Location**

1. (S/WN) Dengshahe SSM Field Garrison North (Figure 1) is a type A missile support base and is one of five missile-related facilities in the vicinity of Dengshahe. By road, it is 8 km from Dengshahe SSM Field Garrison, 12 km from Dengshahe Probable SSM RTP [REDACTED], 17 km from Dengshahe SSM Training Launch Site 1, and 33 km from Jinxian SSM Field Position. The garrison is on flat terrain in a densely populated and heavily cultivated area. Except for aboveground power and communications lines, no C3 facilities are apparent. The field garrison is probably also served by the national-level buried communications cable network which passes within 500 meters of the facility. The walled garrison consists of a missile and GSE storage area and a barracks and housing area.

25X1

Missile GSE Storage Area

2. (S/WN) The missile and GSE storage area contains a single-bay missile checkout/storage building and GSE storage buildings consisting of a 4-bay garage, a 6-bay garage, and a 20-bay garage, which provide space to store 30 vehicles and one missile on its transporter or T/E.

Barracks and Housing Area

3. (S/WN) The barracks and housing area contains approximately 3,575 square meters of barracks roospace. Because several of the barracks contain floorspace which is used for other purposes, such as administration and mess, it is estimated that 2,733 square meters of floorspace were allocated for barracks. This would provide the capacity to house approximately 594 personnel in four to six company-sized units. The garrison has two messhalls, one large kitchen, one possible kitchen, and five basketball courts.

Construction Status

4. (S/WN) All of the barracks and a six-bay garage were present when the facility was first observed in June 1962. The missile checkout/storage building, a four-bay garage, and an additional six-bay garage were constructed in late 1966. In 1980 the garrison was expanded. The 6-bay garage was expanded by the addition of a 14-bay extension, creating a 20-bay garage. A new security wall was added to enclose a larger area. A new support building was added to the GSE storage area, and a new messhall was constructed in the barracks and housing area. In early 1982, construction was underway on a new 14-bay garage.

Missile System Association and Activity

5. (S/WN) The garrison was first usable when the missile checkout/storage building and new garages were completed in 1966. Although the arrival of CSS-1 GSE was observed at nearby Dengshahe SSM Field Garrison in late 1966, GSE could not be confirmed at Dengshahe SSM Field Garrison North until August 1973, when four cryogenic oxidizer trailers and five fuel trucks (all of the necessary propellant vehicles for a CSS-1 unit) were observed. CSS-1 GSE was observed sporadically through March 1982. CSS-2 GSE was observed for the first time in May 1979. The CSS-1 GSE remained in the storage area through March 1982. The CSS-2 GSE was removed after August 1981.

IA-Dengshahe North-1

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INSTALLATION OR ACTIVITY NAME			COUNTRY
Yidu SSM Technical Training Facility			CH
UTM COORDINATES	GEOGRAPHIC COORDINATES		
NA	36-36-09N 118-28-49E		
MAP REFERENCE			
SAC. USATC, Series 200, Sheet 0381-22, scale 1:200,000			
LATEST IMAGERY USED		NEGATION DATE (if required)	
Mar 82		NA	

BASIC DESCRIPTION

Location

1. (S/WN) Yidu SSM TTF (Figure 1) is near the isthmus of the Shandong Peninsula, in Shandong Province in northeast China. Yidu TTF is 7.4 km south of the town of Yidu. There have been no other missile-associated facilities identified nearby. The nearest railhead is 15 km to the north. The TTF is situated in a natural valley on hilly terrain in a heavily agricultural and densely populated area. Electric power is supplied through overhead lines from the local power grid. Except for overhead power and communication lines, no C3 facilities are apparent. The TTF contains a missile and GSE storage area, an SSM training area, and a barracks and housing area.

Missile and GSE Storage Area

2. (S/WN) GSE storage is provided by one single-bay garage, one two-bay garage, one three-bay garage, one five-bay garage, one eight-bay garage, five nine-bay garages, and one ten-bay garage. These garages provide enough space to store 74 vehicles. Missile and missile-launcher storage is provided by one two-bay (CSS-3 first-stage) missile checkout/storage building, one single-bay (CSS-3 second stage) missile checkout/storage building, and two double-length, two-bay missile checkout/storage buildings. These four missile checkout/storage buildings have a total of 11 bays for storing transporters or T/Es.

Barracks and Housing Area

3. (S/WN) Yidu TTF contains approximately 14,468 square meters of roof space, including several multistory barracks. This equals 11,574 square meters of floorspace. At a ratio of approximately 4.6 square meters of floorspace per person, Yidu TTF has the capacity to house approximately 2,516 people in 17 to 27 company-sized units. There are 162 vault-roofed family quarters, 28 other family quarters, and 32 BOQs. This would add a total of 222 military people to the overall garrison capacity. A separate housing compound (not on graphic) east of the TTF was originally considered to be part of the TTF, but is now housing workers building a nearby airfield. The TTF contains three large and eight small messhalls, one large auditorium/gymnasium, an outdoor stadium/movie theatre, and five basketball courts.

Construction Chronology

4. (S/WN) With the exception of the SSM training launch pad, Yidu TTF was substantially complete when it was observed on the first interpretable photograph of the facility in December 1962. A standard-sized [] concrete launch pad surrounded by a semicircular concrete apron, hardstands,

and two paved access roads had been constructed in the SSM training area by January 1965. Between May and November 1971, the semicircular concrete apron around the pad was enlarged to its present circular form. With the exception of the launch pad apron enlargement/conversion, no substantial construction activity occurred from 1965 until 1978.

5. (S/WN) In 1978, a major construction/expansion program started at Yidu TTF. By late 1980, 26 new buildings had been constructed. In the GSE storage area, a ten-bay garage had been completed by mid-1980. A large multistory headquarters building, four multistory barracks, and a large three-section messhall had been completed by late 1980. By late 1981, a new administration/classroom building, a new multistory barracks, and a three-section messhall building had been completed.

Missile System Association and Activity

6. (S/WN) Technical training for every known Chinese strategic missile system except the CSS-4 and WU-1 has been observed at Yidu TTF. Missile training exercises and GSE for the SRBM, CSS-1, CSS-3, and most recently the CSS-2 have all been observed at the TTF since October 1971.

7. (S/WN) SRBM and CSS-1 GSE were first identified at the TTF in November 1971, when an SRBM T/E and a CSS-1 T/E were present. This first positive identification of missile equipment at Yidu confirmed that the TTF was a missile training center. Previously, the function of the facility had not been determined. In May 1972, an SRBM airframe was observed erected on the pad with an SRBM T/E backed up to it. SRBM and CSS-1 training exercises and GSE were frequently observed at Yidu TTF through 1977.

8. (S/WN) Between November 1970 and November 1971, a 37-meter-high, steel lattice, missile service tower was constructed 76 meters east of the launch pad. Six fixed service platforms were set within the tower at various heights. A missile could be lifted into the tower from one side. The tower was designed to duplicate the missile service platform levels in a CSS-3 silo and provide realistic technical training for CSS-3 personnel. The tower was removed from Yidu TTF in 1977 and transferred to the Danzhou SSM TTF [] While at Yidu, the missile service tower apparently was used exclusively for CSS-3 training.

9. (S/WN) Possible CSS-3 GSE was first observed in September 1972 when a CSS-2 or CCS-3 first-stage transporter was detected. In May 1973, a CSS-3 second-stage transporter was confirmed. The first sighting of a CSS-3 airframe occurred in October 1975 when the first and second stages of a CSS-3 missile were observed aboard their transporters. A CSS-3 airframe was in the missile service tower in November 1977. Since the removal of the missile service tower from Yidu TTF in late 1977, no further CSS-3 equipment or training has been observed.

10. (S/WN) Full complements of CSS-2 GSE were first seen at Yidu in late 1978; technical training on other missile systems was no longer observed. In June 1979, the first CSS-2 missile exercise in which a CSS-2 missile was erected was observed on the pad. Major components of a CSS-2 launch unit, including a warhead van, a TMC, and 11 CSS-2 propellant vehicles, were also present. During all of the CSS-2 missile training exercises, a light-toned CSS-2 airframe with an optical tracking stripe (probably an inert training missile) was observed. Since June 1979, ten CSS-2 missile training exercises have been observed. The most recent CSS-2 exercise was [] Since November, training at Yidu TTF has apparently been undergoing its annual winter standdown. No unusual activity was observed through March 1982, the date of the latest imagery.

Imagery Analyst's Comments

11. (S/WN) Missile technical training for the SRBM, CSS-1, CSS-3, and possibly the CSS-2 was conducted at Yidu TTF until mid-1978. Since 1978, only CSS-2 launch unit training has been observed. Since the shift to CSS-2 launch unit training, as many as two complements of CSS-2 GSE have been observed in training exercises and/or based at Yidu throughout the year. The CSS-2 launch units based or undergoing training at the TTF could be considered operational and capable of deploying from Yidu. For this reason, Yidu can be considered to have been an SSM field garrison as well as a CSS-2 launch unit training facility since 1978. Missile technical training, previously conducted at Yidu, has been shifted to Jiumengjin SSM TTF and to Danzhou SSM TTF.

BASIC DESCRIPTION

1. (S/WN) Kunning SSIM Field Garrison (Figure 1) is in Yunnan Province in south China, 12 km southeast of Kunning, the capital city of the province. It is on level ground in a heavily agricultural densely populated area and is one of three missile-related facilities in the immediate vicinity of the city. Kunning SSIM RTP is 7 km by road east-northeast of the field garrison. Kunning SSIM Training Launch Site 1 is in mountainous terrain 26 km by road southeast of the field garrison. No missile SSIG has been seen at the garrison since 1979, and as reflected by new building and antenna construction, this garrison may now be a signal intercept station. The garrison is surrounded by a walled facility which contains an administration area, a missile and GSE storage area, a communications support area (which appears to be deactivated), and a barracks and housing area.

2. (S//WN) GSE storage at the garrison is provided by one 15-bay garage, one 8-bay garage, one 27-bay garage, one 12-bay garage, one large 3-bay garage, and one large 2-bay garage (normally used to store A-frame cranes). This provides enough space to store 67 vehicles. Missile and missile launcher checkout and storage is provided by one two-bay missile checkout/storage building and one single-bay missile checkout/storage building. These two missile checkout/storage buildings have the capacity to store three transporters and/or T/Es.

3. (S/WN) The barracks and housing area contains approximately 5,950 square meters of barracks roospace. Because several of the barracks contain floorspace which is used for other purposes, such as administration or mess, it is estimated that 4,760 square meters were allocated for barracks floorspace. At a ratio of 4.6 square meters of floorspace per person, the field garrison has the capacity to house

Construction Chronology

Missile System Association and Activity

Imagery Analyst's Comments

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Dianhu SSM Support Facility		CH
DTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	34-13-01N 112-11-26E	
MAP REFERENCE		
SAC, USATC, Series 200, Sheet 0385-13, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if required)
Mar 82		Oct 69

BASIC DESCRIPTION

Location

1. (S/WN) Dianhu SSM Support Facility (Figure 1) is a deactivated type A missile support base (field garrison). It is in Henan Province, in the Wuhan NMR, in east-central China, 2 km south of the town of Dianhu, 55 km south-southwest of the city of Luoyang, and 50 km north-northeast of the Sundian Missile Launch Complex SSM. These distances are longer by road. The facility is a former PLA ground forces installation that was converted to CSRF use in late 1969 and abandoned in early 1978. The installation is in a wide river valley which is densely populated and heavily cultivated. The garrison is well secured and road served. The closest rail line is at Yichuan, 35 km to the northeast. Communications are provided by aboveground lines. Electricity is provided from the local power grid via overhead transmission lines. When operational as a missile support base, the garrison consisted of a missile and GSE storage area and a barracks and housing area.

Missile and GSE Storage Area

2. (S/WN) When the facility was operational, missile and GSE storage consisted of one 30- by 9-meter missile checkout/storage building, three 23- by 9-meter missile checkout/storage buildings, one 12-bay garage, and two open-storage/parking areas.

Barracks and Housing Area

3. (S/WN) The barracks and housing area contains approximately 3,830 square meters of floorspace in 21 barracks for six to nine company-sized units. The garrison also contains six messhalls, one C-shaped

administration building, two probable single-family structures, one possible auditorium, three support buildings, and three basketball courts.

Construction Chronology

4. (S/WN) This facility was converted from a PLA installation for use by the CSRF between October and December 1969, when four drive-in missile checkout/storage buildings were constructed. Two vehicle sheds were built near the checkout buildings between August 1970 and June 1971. These were subsequently removed, and a single 12-bay garage was constructed between November 1974 and December 1975. The missile checkout/storage buildings were removed between February and March 1978.

Missile System Association and Activity

5. (S/WN) Missile GSE was probably in garrison by December 1969. Probable GSE was observed in August 1970, but could not be confirmed until February 1974 when three cryogen trailers were identified. GSE related specifically to an SSM was not identified until February 1976, when an SRBM I/E and two gantry cranes were observed. A possible warhead van was observed during October 1977. The cryogen trailers were observed until March 1978.

Imagery Analyst's Comments

6. (S/WN) The GSE from this garrison has probably been moved to a storage facility at the Sundian SSM Complex. SRBM GSE was observed at Sundian Cave Storage Facility/SSM () and Sundian Possible SSM Propellant Storage Area () on imagery of August and September 1978, the first imagery available after the garrison was deactivated in March 1978.

7. (S/WN) SRBM equipment from this garrison may have been involved in a combined SRBM and CSS-1 training exercise at Jiumengjin SSM TIF, 90 km by road to the north, during December 1977. GSE normally seen at Dianhu was not present (), an SRBM and a CSS-1 were erected at Jiumengjin. GSE was observed again at Dianhu () following the completion of the training exercise at Jiumengjin.

8. (S/WN) A probable SRBM field exercise was observed approximately 55 km southwest of the facility during December 1975. Two SRBM checkout tents and ten support vehicles were observed in a stream valley, but no launch area was ever discerned. This GSE was not seen when the area was next imaged in January 1976. Dianhu is the nearest SRBM base to the exercise area, and the equipment probably deployed from this garrison.

SECRET

INSTALLATION OR ACTIVITY NAME		COUNTRY
Fengrun SSM Field Garrison		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	39-51-22N 118-05-37E	
MAP REFERENCE		
SAC, USATC, Series 200, Sheet 0381-2, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if requested)
Mar 82		Nov 70

BASIC DESCRIPTION

Location

1. (S/WN) Fengrun SSM Field Garrison (Figure 1) is in Hebei Province in northern China. The garrison is 4 km northwest of Fengrun and 26 km northwest of Tangshan. It is situated on flat terrain in a densely populated and heavily agricultural area. Fengrun SSM Field Garrison is one of two missile-related facilities in the vicinity of Fengrun. Fengrun SSM Training Launch Site is 39 km north northeast of Fengrun SSM Field Garrison. Electric power is provided by overhead lines from the local power grid. Except for aboveground power and communications lines, no C3 facilities are apparent. Although no RTP has been identified, rail service is available from a rail line that passes within 1.0 km of the garrison. Fengrun SSM Field Garrison consists of a missile and GSE storage area and a barracks and housing area.

Missile and GSE Storage Area

2. (S/WN) GSE storage is provided by one 22-bay garage, one 17-bay garage, two 15-bay garages, two 13-bay garages, one 10-bay garage, two 9-bay garages, and two 7-bay garages. These 11 garages provide a total of 137 bays for vehicle storage.
3. (S/WN) Additional GSE storage is provided in the southwest corner of the garrison where one 22-bay garage; one 27-bay garage; a single-bay, drive-in vehicle maintenance building; and two 2-bay, drive-in vehicle storage/maintenance buildings are located. These five garages/vehicle support buildings provide a total of 54 additional bays for vehicle storage.
4. (S/WN) Missile and missile launcher storage is provided by a two-bay, drive-through, probable RIM building and four identical two-bay, 25- by 10-meter missile checkout/storage buildings. These five buildings provide a total of 10 bays for transporter or T/E storage.
5. (S/WN) Fengrun SSM Field Garrison contains a total of 191 bays for vehicle storage and 10 bays for transporter or T/E storage.

Other Storage

6. (S/WN) Warehouse storage is provided by four large and eight smaller warehouses located throughout the field garrison. A separately walled POL storage compound is in the extreme southwest corner of the garrison. There is also a separately fenced former ammunition storage area (not shown on the graphic) 325 meters northwest of the garrison.

Barracks and Housing Area

7. (S/WN) The barracks and housing area contains approximately 15,138 square meters of barracks roofspace in 34 barracks. This equates to approximately 12,110 square meters of barracks floorspace. At a ratio of 4.6 square meters of floorspace per person, the garrison has the capacity to house approximately 2,632 personnel in the barracks in 18 to 29 company-sized units. Additionally, there are 105 family quarters, 40 quarters for single officers, and four VIP quarters. All the family quarters and most of the single officer quarters are in a separately walled compound in the southeast corner of the garrison. The family, single officer, and VIP quarters can accommodate approximately 149 officers and noncommissioned officers.

8. (S/WN) Fengrun SSM Field Garrison contains a headquarters building, an administration building and bachelor quarters, 4 large and 6 smaller messhalls, 17 basketball courts, and 2 large parade/athletic fields. A weather station, a large walled agricultural area under cultivation, and a complex of 12 large greenhouses for food production are also present.

Construction Chronology

9. (S/WN) Fengrun SSM Field Garrison, a former infantry regiment installation, was substantially complete when it was transferred from ground forces to CSRF use in 1971. In March and April 1971, four missile checkout tents were observed. By late March 1972, one missile checkout and storage building and four garages were complete, and the probable RIM building, another missile checkout/storage building, and another garage were under construction. By May 1972 all of the missile and GSE storage buildings, with the exception of a 15-bay garage (constructed between 1976 and 1977) and a nine-bay garage (added in 1980) were present and appeared to be complete. Two garages damaged during a 1976 earthquake were later dismantled and rebuilt.

10. (S/WN) During 1976 and 1977, a new housing area consisting of two barracks and a messhall was constructed in the southwest corner of the garrison. A major construction/refurbishment program occurred during 1978 and 1980, when the three large warehouses in the southwest corner of the garrison were reroofed and three smaller warehouses were constructed.

Missile System Association and Activity

11. (S/WN) Fengrun SSM Field Garrison was transferred to CSRF use in 1971. CSS-1 GSE has been observed there since March 1971, when two probable CSS-1 transporters, one probable CSS-1 T/E, and one possible CSS-1 T/E were observed. By August 1972, the amount of CSS-1 GSE had increased to eight CSS-1 transporters and four CSS-1 launch stands. Since 1972, large amounts of CSS-1 GSE have been observed at the garrison. As a safety precaution following the severe earthquake of July 1976, GSE for major portions of four CSS-1 launch units was parked outside the garages. Major elements of four CSS-1 launch units, each with two missile transporters, are usually seen at Fengrun. During periods when CSS-1 training is underway at Fengrun SSM Training Launch Site, the GSE count at the garrison fluctuates. All GSE is stored inside buildings, except for 4 empty CSS-1 transporters and 10 to 20 vehicles. CSS-1 GSE continued to be observed through March 1982, the date of the latest imagery.

Imagery Analyst's Comments

12. (S/WN) A large division- or army-level military headquarters facility (Fengrun Military Installation) has been constructed 800 meters northeast of this garrison. It is not yet clear if the new headquarters is related to the missile forces or the ground forces. There is an overhead communications line between the SSM field garrison and the new headquarters, but no other evidence of a direct relationship. The new headquarters is complete and contains its own communications area with at least four HF horizontal dipole antennas.

SECRET

INSTALLATION OR ACTIVITY NAME		COUNTRY
Xixia SSM Field Garrison		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	33-20-57N 111-29-29E	
MAP REFERENCE		
SAC. USATC, Series 200, Sheet 0385-17, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if required)
Feb 81		Jul 73

BASIC DESCRIPTION

Location

1. (S/WN) Xixia SSM Field Garrison (Figure 1) is a deactivated type A missile support base. It is in Henan Province, in the Wuhan MR, in east-central China. It is 6 km north-northeast of the town of Xixia, 65 km south of Sundian Missile Launch Complex SSM, and 175 km south-southwest of the city of Luoyang. These distances are considerably longer by road. This is one of two deactivated type A missile support bases in the general area. It was operational from September 1973 through February 1979. The installation is in a wide valley near the base of a mountain which has an elevation of 600 meters above the valley floor. The installation is road served and partially wall secured. The closest rail line is in the city of Nanyang, 90 km from Xixia by road. Electricity is supplied from the local power grid via overhead transmission lines. Communications are provided by aboveground lines. A buried communications cable has been observed extending north from the national-level trunk line approximately 120 km towards Xixia. The cable was traced to within 20 km of the garrison and may have provided secure communications to the garrison. The facility consists of a wall-secured missile and GSE storage area and a barracks and housing area.

Missile and GSE Storage Area

2. (S/WN) Missile and GSE storage consisted of three 24- by 10-meter 2-bay missile checkout/storage buildings and four garages with a total of 36 bays. Seven personnel support and general storage buildings are also present. A perimeter wall encloses the missile and GSE storage area and separates it from the housing area.

Barracks and Housing Area

3. (S/WN) The barracks and housing area contains approximately 1,106 square meters of floorspace in three barracks for 240 personnel or two to three company-size units. Two basketball courts and two messhalls containing three kitchens are present.

Construction Chronology

4. (S/WN) A two-story building, possibly a local school, and an open storage area used for agricultural equipment had been converted to CSRF use by September 1973. No indication of a CSRF function was discernable on imagery of July 1973. The sides of the missile checkout/storage buildings and most of the perimeter wall were constructed. When the facility was imaged in February 1974, a 12-bay garage and a 9-bay garage had been built and the roofs of the missile checkout/storage buildings were under construction. By July, a six-bay garage, the roofs of the missile checkout/storage buildings, and a messhall in the housing area had been finished. When the facility was next imaged in October, a nine-bay garage had been added. No further changes were observed until December 1977, when a messhall and a probable barracks were constructed. Evidence that the garrison was being abandoned was first seen in February 1979 when the 12-bay garage and 9-bay garages were dismantled. By May 1979, no GSE was present.

Missile System Association and Activity

5. (S/WN) GSE was first observed during September 1973. A CSS-1 A-frame crane, an SRBM mobile gantry crane, and cryogen transporters used for both SRBMs and MRBMs were identified. A CSS-1 T/E was observed during December 1973 and February 1974. In November 1976, a GSE convoy was observed leaving the facility. During July 1978, type O propellant transporters, associated with the CSS-4, were observed parked in open storage. A probable warhead van was near one of the checkout buildings in August 1978. The type O transporters were no longer parked in open storage in October 1978, but were probably parked in garages. Two cab-over-engine trucks were in the nine-bay garage. This was the last observation of GSE at this garrison.

Imagery Analyst's Comments

6. (S/WN) Prior to construction of the wall-secured portion of the facility, GSE was observed in open storage at a small village approximately 1 km to the east. Once the GSE storage buildings were completed, the GSE was transferred, but personnel from the garrison may have continued to use so25X1 buildings in the village for housing. The first messhall was not constructed within the garrison until July 1974. In October 1978, a formation of troops was observed outside the garrison on the road to the village. The use of the village buildings could add from one to two companies to the garrison complement. This would be a more likely number of personnel for a garrison with three missile checkout/storage buildings.
7. (S/WN) During December 1977, CSS-1 equipment from Xixia may have been involved in a combined SRBM and MRBM training exercise at Jiumengjin SSM TTF, 330 km by road to the north. An unusually large number of vehicles was observed at this facility in November 1977. 25X1
CSS-1 and an SRBM were erected at Jiumengjin. 25X1
8. (S/WN) During April 1978, type O CSS-4 propellant vehicles were brought to Xixia and stored there until the Xixia facility was abandoned in early 1979. The type O vehicles were then observed in August 1979 at the Luoning Housing/Support Area. The reason for the storage of C25X1 propellant vehicles at Xixia is not known. The two CSS-4 silos at Luoning were not ready for propellant loading until mid-1980.

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INSTALLATION OR ACTIVITY NAME		COUNTRY
Datong SSM Field Garrison		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	37-07-02N 101-31-45E	
MAP REFERENCE		
SAC. USATC, Series 200, Sheet 0332-02, scale 1:200,000		
LATEST IMAGERY USED		NEGATION DATE (if required)
Mar 82		May 76

BASIC DESCRIPTION

Location

1. (S/WN) Datong SSM Field Garrison (Figure 1) is in Qinghai Province in northwest China. The garrison is in a valley in very rugged terrain at an elevation of 2,804 meters. It is 25 km by road northwest of the town of Datong and 63 km northwest of the city of Xining. The nearest railroad is in the town of Datong. The Datong Garrison is one of three known operational/occupied SSM-related facilities in north-central China. Haiyan SSM Field Training Facility is 52 km (137 km by road) southwest of the garrison. Liqingkou SSM Launch Complex is 93 km (213 km by road) northwest of Datong Garrison. Electric power is supplied by a local substation. Except for overhead power and communications lines, no C3 facilities are apparent. Datong SSM Field Garrison contains a missile and GSE storage area, an SSM training launch pad, and a barracks and housing area.

Missile and GSE Storage Area

2. (S/WN) GSE storage at Datong Garrison is provided by two 26-bay garages, one 15-bay garage, one 12-bay garage, three 10-bay garages, one 8-bay garage, one 5-bay garage, and two 4-bay garages. Missile and missile launcher storage is provided by nine two-bay missile checkout/storage buildings and one single-bay missile maintenance training building. This provides sufficient space to store 130 vehicles and 19 transporters or T/Es.

Other Storage

3. (S/WN) Datong SSM Field Garrison also contains a vehicle repair facility, a POL storage facility, and two walk-in caves (one not shown) probably for an underground command post. Several small, boxlike van trucks, with a small circular area atop the van body, have been frequently observed in a housing/support area next to the caves. These vans and may be communications related. The garrison also contains numerous warehouses and general storage buildings.

Barracks and Housing Area

4. (S/WN) Datong SSM Field Garrison is one of the largest SSM field garrisons in China. Because some of the buildings have more than one story, it was estimated that there are 22,230 square meters of barracks floorspace. At a ratio of 4.6 square meters per person, Datong has the capacity to house approximately 4,833 people in 35 to 54 company-sized units. There are approximately 126 family quarters and/or single officer quarters. This would add an additional 126 military people to the overall garrison capacity. The garrison contains 16 messhalls, eight auditoriums, and 20 basketball courts.

Construction Chronology

5. (S/WN) Datong Garrison consists of three former PLA communications and related support facilities that were converted to CSRF use in 1976. With the exception of the missile and missile GSE storage buildings, the buildings used by the garrison were substantially complete at the time the CSRF conversion occurred. Most of these buildings were constructed between January 1967 and October 1971. At that time, it consisted of the Datong Probable Domestic Communications Satellite Station, the Datong HF Communications Facility, and the Datong Storage Area, all of which are now part of the SSM field garrison. Between December 1973 and November 1974, both the communications satellite station and the HF communications facility were dismantled. From November 1974 until the observation of SSM equipment in October 1976, no construction activity was seen.

6. (S/WN) In October 1976, construction was underway on nine two-bay missile checkout/storage buildings. These were interconnected into one set of six buildings having a total of 12 bays and one set of three buildings having a total of six bays. These buildings had been completed by April 1977. Two 26-bay garages near the 12-bay missile checkout/storage building set, and a 12-bay garage, a 10-bay garage, and a 4-bay garage near the 6-bay missile checkout/storage building set were constructed between July and December 1977. An SSM training launch pad and slightly smaller than launch pads at operational SSM sites, was first identified in June 1978 near the six-bay missile checkout/storage building set. A CSS-2 launch stand was on the pad at the time. When not in use, the training pad is covered with earth and vegetation. Since June 1978, no significant construction has occurred.

Missile System Association and Activity

7. (S/WN) Only CSS-2 GSE, first identified at Datong Garrison in October 1976, has been observed. At that time, approximately 120 vehicles, including 2 probable warhead vans, a CSS-2 launch stand transporter, and 25 propellant vehicles, were at the garrison. It is likely that this equipment came from the Wuwei SSM Field Garrison, which is 93 km northeast of Datong. SSM equipment was last observed at Wuwei on photography of May 1976. All equipment had been removed from that facility by early October. PLA ground force units have occupied the Wuwei facility.

8. (S/WN) Numerous pieces of CSS-2 GSE were observed on imagery of April, September, and October 1977. A CSS-2 T/E was first seen at the garrison in open storage on imagery.

9. (S/WN) In October and November 1977, there was a sharp decrease in the number of vehicles observed in open storage at the garrison. This decrease can be mostly attributed to the completion of the GSE storage buildings. From November 1977 until June 1978, little or no activity was observed in the garrison. In June 1978, activity increased and the training launch pad was first observed completed. A CSS-2 T/E was backed up to the launch stand on the pad. The activity at the training launch pad had ended by 2 June. It is possible that this CSS-2 GSE was subsequently transferred to the Liqingkou SSM Launch Complex. An increase in CSS-2 GSE was observed at the Liqingkou complex between August and October 1978.

10. (S/WN) CSS-2 units based at Datong Field Garrison may also utilize Haiyan SSM Field Training Position. In June and July 1979, some CSS-2 units were preparing to depart the garrison. In August, they were apparently gone from Datong. Also in June, one CSS-2 unit was in training at the Haiyan Facility. Following completion of the training at Haiyan, a CSS-2 unit had returned to Datong by October 1979. In March 1981, GSE was again observed at Datong being prepared for departure. In early April, CSS-2 field training was in progress at Haiyan. By September 1981, the CSS-2 GSE was gone from Haiyan and had probably returned to the Datong Garrison.

Imagery Analyst's Comments

11. (S/WN) The echelon and organization of the units based at Datong are not certain. The Datong SSM Field Garrison, one of the largest SSM field garrisons identified in China, is large enough to contain most of the elements of two regiment-sized units and a senior headquarters. The large amount of administration space present may be used to house an SSM division- or army-level headquarters unit.

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